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EXAMINER

SASTRI, SATYA B

ART UNIT PAPER NUMBER

1713

DATE MAILED: 06/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/606,881

Applicant(s)

ORIAKHI, CHRISTOPHER

Examiner

Satya B Sastri

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) 13-44 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5 and 8-12 is/are rejected.
- 7) ☒ Claim(s) 4, 6 and 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to application filed on June 24, 2003. *Claims 1-44* are now pending in the application.

Election/Restrictions

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. *Claims 1-12*, drawn to binder composition, classified in class 524, subclass 556.
 - II. *Claims 13-29*, drawn to method for freeform fabrication, classified in class 427, subclass 157.
 - III. *Claims 30-44*, drawn to method for freeform fabrication apparatus, classified in class 264, subclass 402.
3. It is noted here that the preamble in composition claims recites a statement of Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the binder may be useful as fiberglass insulation binder.

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4. Inventions II and III are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus may be useful for the process of making fiberglass insulation products.

5. Inventions I and III are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product may be useful as fiberglass binder.

6. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

7. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

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8. During a telephone conversation with Mr. Bradley Haymond on June 8, 2004 a provisional election was made with traverse to prosecute the invention of I, *claims 1-12*. Affirmation of this election must be made by applicant in replying to this Office action. *Claims 13- 44* are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Specification

9. The disclosure is objected to because of the following informalities:

- Typographical errors in page 9, paragraph 0033 (poly(meth)acrylic acid).
- The disclosure does not include which alcohols are useful in the invention as claimed in *claims 9 and 10*. Working examples in table on page 10 include polyols.
- Description of the drawing on page 2 may allude to the figure as Fig. 1 or Figure 1 for consistency.
- The use of the trademark Surfynol 465 and Tergitol 15-S-5/7 in table on page 10 has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Appropriate corrections are required.

Claim Rejections - 35 USC § 102 and 103

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. ***Claims 1, 2, 3, 5 and 11*** are rejected under 35 U.S.C. 102(b) as anticipated by Strauss et al. (US 5,340,868).

The prior art to Strauss et al. disclose **fibrous glass binders** comprising a **polycarboxy polymer**, β -hydroxyalkylamide and an at least **trifunctional monomeric carboxylic acid** (abstract). The polycarboxy polymer may be **homopolymer or copolymer of unsaturated carboxylic acids** including **acrylic acid, methacrylic acid, crotonic acid, maleic acid** etc. (column 2, lines 32-48). **Trifunctional monomeric carboxylic acids** include **citric acid, trimellitic acid** etc. (column 2, lines 62-69). The binders may include conventional adjuvants such as **dyes, fillers** and coupling agents (column 4, lines 1-6). Binder composition as disclosed in the working example in Table I,

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column 5 includes **90%, by weight, water**. Thus, *claims 1, 2, 3, 5, 11* are anticipated by Strauss et al.

13. *Claim 8* is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Strauss et al. (US 5,340,868).

The prior art to Strauss is presented above in paragraph 11 and is incorporated herein by reference. Given the identity of the claimed binder and the prior art binder compositions, a reasonable basis exists to believe that the pH of prior art compositions must inherently be within the claimed range. It has been held that where applicant claims a composition in terms of function, property or characteristic where said function is not explicitly shown by the reference and where the examiner has explained why the function, property or characteristic is considered inherent in the prior art, it is appropriate for the examiner to make a rejection under both the applicable section of 35 USC 102 and 35 USC 103 such that the burden is placed upon the applicant to provide clear evidence that the respective compositions do in fact differ. *In re Best*, 195 USPQ 430, 433 (CCPA 1977); *In re Fitzgerald et al.*, 205 USPQ 594, 596 (CCPA 1980).

14. *Claims 1 and 11* are rejected under 35 U.S.C. 102(b) as anticipated by Epstein (US 4,183,759).

The prior art to Epstein discloses particulate refractory material formed into a mold or core and bonded with a **binder including a polymeric carboxylic acid**, a particulate inorganic material, **water** and one or more of **tartaric acid, phosphoric acid**

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and fused particulate magnesia (abstract). The polymeric carboxylic acid may be a homopolymer of acrylic acid. Thus, *claims 1 and 11* are anticipated by Epstein.

15. *Claims 9, 10 and 12* are rejected under 35 U.S.C. 103(a) as being unpatentable over Strauss et al. (US 5,340,868) in view of Chen et al. (US 2002/0188055 A1).

The prior art to Strauss et al. is adequately presented in paragraph 11 above and is incorporated herein by reference.

The difference between the prior art and the present invention is (a) the inclusion of an alcohol and (b) surfactant of the binder compositions.

The prior art to Chen et al. discloses a fiberglass insulation binder composition made from a polycarboxy polymer, a polyhydroxy crosslinking agent, and a cationic surfactant, amphoteric surfactant, nonionic surfactant, or mixture thereof. Binders produced in accordance with the invention are characterized by improved atomization, improved binder dispersion and fiber wetting properties, and improved protection of individual fibers during processing. In light of such benefits, it would have been obvious for one of ordinary skill in the art at the time the invention was made to include polyhydroxy crosslinking agent and a surfactant in the binder compositions comprising polycarboxy polymer and thereby obtain the present invention.

Allowable Subject Matter

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16. *Claims 4, 6, 7* are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: *Claims 4, 6, 7* are directed to a binder composition comprising an organic acid comprising a phosphate ion, phytic acid and a colorant comprising a pigment suspended as particles and a dye dissolved in said composition, respectively. Such modifications are not disclosed in the prior art to Strauss et al. (US 5,340,868) or Epstein (US 4,183,759).

Conclusion


17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Satya Sastri at (571) 212 1112.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached at (571) 212 1114.

Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist at (703) 308-2351.

SATYA SASTRI

June 17, 2004


DAVID W. WU
SUPERVISORY PATENT EXAMINER
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